

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.15**SOURCE INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** SIR-002544**Date Inspected:** 21-Jul-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**Quality Control Contact:** David Duan**Quality Control Present:** Yes No**Material transfer:** Yes No N/A**Sampled Items:** Yes No N/A**Stock Transfer:** Yes No N/A**OK to Cut:** Yes No N/A**Rebar Test Witness:** Yes No N/A**Delayed/Cancelled:** Yes No N/A**Other:****Bridge No:** 34-0006**Component:** OBG and Tower Components**Bid Item:****Lot No:** B 278**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector Mr. S. Manjunath Math was present during the time noted above for observations relative to the work being performed.

Inspection for Surface Preparation and/or Coating Application.

OBG External and Internal Surface Inspection Request No. 3765

A joint three party inspection was performed by ZPMC QC personnel, ABF QA personnel and Caltrans QA Inspector on the OBG external and internal surfaces of Segment 10AW.

The inspection was performed to check and verify the Adhesion test for compliance with the requirements as per Document no. PQWP-P-001, Revision 004 (Surface Preparation and Painting Procedure) and ASTM D4541 (Pull off Strength of Coatings using Portable Adhesion Testers). The Caltrans QA observed (12) adhesion tests on the internal and external surfaces of OBG Segment 10AW in painting workshop no.1.

Inspection Conclusions: The ABF QA personnel accepted the adhesion test where dolly were fixed to the internal and external side and pulled by a hydraulic adhesion tester and the results were 10.59Mpa, 8.21Mpa, 10.74Mpa, 9.68Mpa, 10.20Mpa, 9.85Mpa (for external side) and 9.53Mpa, 5.93Mpa, 7.46Mpa, 12.77Mpa, 6.55Mpa, 12.97Mpa (for internal side) and results appeared to be in general compliance with approved document number PQWP-P-001, Revision 4. The Caltrans QA Inspector concurred with the inspection results.

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Please reference the pictures attached for more comprehensive details.

Shim Plates Inspection Request No. 3766

A joint three party inspection was performed by ZPMC QC personnel, ABF QA personnel and Caltrans QA Inspector on the following Shim Plates.

GGL-MQ-1718 – Quantity 67 nos.

GGL-MQ-1711 – Quantity 8 nos.

The Inspection was performed to check and verify the blast profile depth requirement of (40~86) μm as measured in conformance with the requirements as per ASTM D4417, Method C, Section 6.3.5 and the cleanliness requirements of the steel plate surface after blasting shall meet the requirements of SSPC SP 10 (Near White Blast Cleaning) before applying primer coat at blasting workshop no.2.

Inspection Conclusions: The shim plates were accepted by ABF QA personnel and the profile depth measured were recorded between (75 ~ 84) μm at 3 different locations and the cleanliness of steel surface met SSPC SP 10 requirements. The Caltrans QA Inspector concurred with the inspection results.

Please reference the pictures attached for more comprehensive details.

Cable Support Inspection Request No. 3767

A joint three party inspection was performed by ZPMC QC personnel, ABF QA personnel and Caltrans QA Inspector on the Cable support at a total of Quantity (120).

The Inspection was performed to check and verify the Dry Film Thickness (DFT) in conformance with the requirements as per Document no. PQWP-P-001, Revision 004 (Surface Preparation and Painting Procedure) and SSPC-PA-2 (method for Measuring of Dry Paint Thickness with Magnetic Gages) on Ship # 19.

Inspection Conclusions: The ABF QA personnel accepted the Cable support as the DFT appeared to be in general compliance with the contract requirements and the Caltrans QA Inspector concurred with ABF QA personnel Inspection results.

Traveler Rail and Suspender Bracket Inspection Request No. 3771

A joint three party inspection was performed by ZPMC QC personnel, ABF QA personnel and Caltrans QA for the following items.

1. Traveler Rail – Quantity 10.
2. Suspender Bracket – Quantity 6.

The Inspection was performed to check and verify the Dry Film Thickness (DFT), in conformance with the requirements as per Document no. PQWP-P-001, Revision 004 (Surface Preparation and Painting Procedure),

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SSPC-PA-2 (method for Measuring of Dry Paint Thickness with Magnetic Gages), MEK Resistance Test as per ASTM 4752 and the Residual Chloride test as per SSPC-TU-4 at OBG Trail assembly yard.

Inspection Conclusions: The Traveler Rail was accepted by ABF QA personnel as the Residual Chloride test result were recorded as (20) micro Siemens/cm, the MEK resistance rating was observed as Level 5 and the DFT results were not in compliance due to high DFT and mud cracks were also visibly observed and the Caltrans QA concurred with the ABF QA personnel Inspection results.

OBG Internal side of Bottom panel Floor Inspection Request No. 3768

A joint three party inspection was performed by ZPMC QC personnel, ABF QA personnel and Caltrans QA Inspector on the OBG Internal side of bottom panel from Panel Point (PP) 54 to PP 55 for Segment 7CE.

The Inspection was performed to check and verify the Dry Film Thickness (DFT), in conformance with the requirements as per Document no. PQWP-P-001, Revision 004 (Surface Preparation and Painting Procedure), SSPC-PA-2 (method for Measuring of Dry Paint Thickness with Magnetic Gages) at the Ship # 19.

Inspection Conclusions: The OBG internal side of bottom panel from PP 54 to PP 55 for Segment 7CE was accepted by ABF QA personnel as the DFT results appeared to be in general compliance with contract requirements and the Caltrans QA Inspector concurred with the ABF QA personnel Inspection results.

OBG Internal side of bottom panel Inspection Request No. 3770

A joint three party inspection was performed by ZPMC QC personnel, ABF QA personnel and Caltrans QA Inspector on the following items.

1. Shim Plates – GGL-MQ-1718 = Quantity (67) and Shim Plates – GGL-MQ-1711- Quantity (8).
2. Bike Path splices – Quantity (12).

The Inspection was performed to check and verify the Dry Film Thickness (DFT), in conformance with the requirements as per Document no. PQWP-P-001, Revision 004 (Surface Preparation and Painting Procedure), SSPC-PA-2 (method for Measuring of Dry Paint Thickness with Magnetic Gages) at the painting workshop no. 2.

Inspection Conclusions: The shim plates and bike path splices was accepted by ABF QA personnel as DFT results appeared to be in general compliance with requirements and the Caltrans QA Inspector concurred with ABF QA personnel Inspection results.

OBG Cross Beam Bottom Plate Inspection Request No. 3772

A joint three party inspection was performed by ZPMC QC personnel, ABF QA personnel and the Caltrans QA Inspector on OBG Cross Beam bottom plate for Segment 9DW.

The Inspection was performed to check and verify the Dry Film Thickness (DFT), in conformance with the requirements as per Document no. PQWP-P-001, Revision 004 (Surface Preparation and Painting Procedure),

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SSPC-PA-2 (method for Measuring of Dry Paint Thickness with Magnetic Gages), MEK Resistance Test as per ASTM 4752 and Residual Chloride test as per SSPC-TU-4 at OBG Trail assembly yard.

Inspection Conclusions: The Cross Beam bottom plate for Segment 9DW was accepted by ABF QA personnel as the Residual Chloride test result was (30) micro Siemens/cm, the MEK resistance rating was observed as Level 5 and DFT results appeared to be in general compliance with requirements and the Caltrans QA Inspector concurred with the ABF QA personnel's Inspection results.

Façade Shim Plates Inspection Request No. T 923

A joint three party inspection was performed by ZPMC QC personnel, ABF QA personnel and the Caltrans QA Inspector for the following Façade Shim Plates.

P645 – Quantity 114.

P1106 – Quantity 2.

P1179 – Quantity 4.

P1180 – Quantity 20.

The Inspection was performed to check and verify the Dry Film Thickness (DFT) in conformance with the requirements as per Document no. PQWP-P-001, Revision 004 (Surface Preparation and Painting Procedure) and SSPC-PA-2 (method for Measuring of Dry Paint Thickness with Magnetic Gages) at painting workshop no.2.

Inspection Conclusions: The façade shim plates were accepted after minor touch up by ABF QA personnel as the DFT results appeared to be in general compliance with the contract requirements and the Caltrans QA Inspector concurred with the ABF QA personnel Inspection results.

Façade cover plates and accessories Inspection Request No. T 924

A joint three party inspection was performed by ZPMC QC personnel, ABF QA personnel and the Caltrans QA Inspector on the following Façade cover plates and the relative accessories.

77M (East and North) – 1 Set.

77M (West and South) – 1 Set.

The Inspection was performed to check and verify the degreasing and cleaning in conformance with SSPC-SP-1 (Solvent Cleaning) located at west gate of the blasting workshop.

Inspection Conclusions: The façade cover plates and relative accessories were accepted as degreasing and cleaning appeared to be in general compliance with the contract requirements and Caltrans QA Inspector concurred with the ABF QA personnel Inspection results.

Façade cover plates and accessories Inspection Request No. T 925

A joint three party inspection was performed by ZPMC QC personnel, ABF QA personnel and the Caltrans QA

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Inspector for the following items.

Manhole Cover Plate –Quantity 4.

L-Splice – Quantity 8.

Steel Plate - Quantity 4.

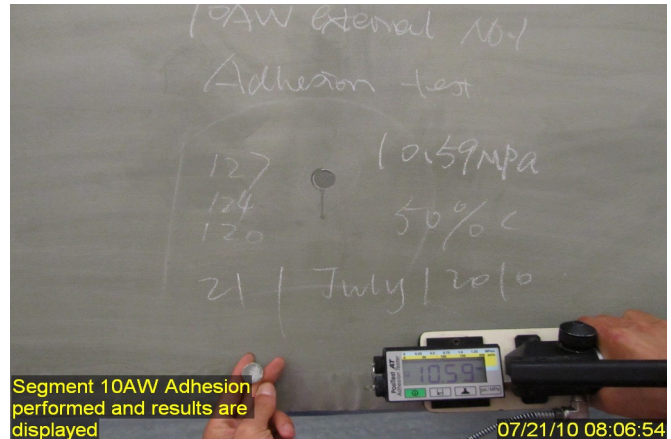
Shim plate - Quantity 4.

Support for the Manhole cover plate of bottom plate – Quantity 2.

The Inspection was performed to check and verify the sweep blast cleaning operation as per SSPC-SP7 before the galvanizing operation at the galvanizing workshop.

Inspection Conclusions: The items mentioned above were accepted as sweep blast cleaning operation appeared to be in general compliance with requirements and the Caltrans QA Inspector concurred with the ABF QA personnel Inspection results.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



Summary of Conversations:

No significant conversations were reported on this date.

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Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 150000422372, who represents the Office of Structural Materials for your project.

Inspected By:	Math,Manjunath
Reviewed By:	Peterson,Art

Quality Assurance Inspector
QA Reviewer